

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions,  
and listings of claims in the application:

LISTING OF CLAIMS:

1-21. (cancelled)

22. (currently amended) Vertebral osteosynthesis equipment, comprising:

the a polyaxial anchoring member (1) comprising i) a proximal threaded stud (5) and ii) a threaded base portion (6) enabling bony anchoring, the proximal stud articulated with respect to the base portion (6),

the threaded base portion (6) comprising i) a threaded portion for bony anchoring, ii) a ~~distal~~ proximal curved wall (17) with a hemispherical proximal form defining a cavity (16), and iii) a collar (18) located between the curved wall (17) and the threaded portion at a location suitable for abutting against a pedicula,

the proximal stud (5) comprising i) a threaded portion (10), and ii) a distal head (11), the distal head (11) retained in the cavity (16) by the curved wall (17);

a connecting part (3) engaged on the threaded stud (5),

the connecting part (3) comprising i) a rounded section (20) connected to ii) two parallel lateral wings (21) with holes for engaging on the proximal stud (5), iii) a circular wall (27) delineating an internal concave spherical face (28) mating with the curved wall (17) of the base portion (6), the circular wall (27) protruding perpendicularly from a lower surface of a lower one of the lateral wings (21), the rounded section for connecting a linking rod (2) to the anchoring member (1); and

a clamping part (4) screwed on the threaded portion (10) of the proximal stud (5) and clamping against an upper one of the wings (21) of the connecting part (3), wherein,

the circular wall (27) delineating the internal concave spherical face (28) bears against the curved wall (17) of the base portion (6), an amount of multidirectional backlash of the proximal stud (5) being limited by a lowermost surface of the circular wall (27) abutting against an upper surface of the collar (18), wherein,

the proximal stud (5) further comprises a collar (12) forming an axial stop surface, and

the connecting part (3) further comprises a circular cavity (26) shaped to engage with the collar (12) of the proximal stud (5), the circular cavity (26) is engaged with the collar (12) of the proximal stud (5),

with a longitudinal axis of the stud (2) in alignment with a longitudinal axis of the base portion (6), the stud (2) is in a neutral first position with the lowermost surface of the circular wall (27) held spaced apart from the upper surface of the collar (18) of the base portion (6) at a distance defined by said circular cavity (26) engaged with said axial stop surface of the collar (12) of the stud (5), and

with the clamping part (4) screwed on the threaded portion (10) of the proximal stud (5) clamping the upper one of the wings (21) against the lower one of the wings (21), the stud (2) is moveable from the first position to a second position with the lowermost surface of the circular wall (27) abutting against the upper surface of the collar (18) of the base portion (6).

23. (previously presented) The vertebral osteosynthesis equipment of claim 22, wherein the circular wall (27) is deformable to dampen movement of the proximal stud (5) with the lowermost surface of the circular wall (27) abutting against the upper surface of the collar (18).

24. (currently amended) ~~The vertebral osteosynthesis equipment of claim 23~~ Vertebral osteosynthesis equipment, comprising:

a polyaxial anchoring member (1) comprising i) a proximal threaded stud (5) and ii) a threaded base portion (6) enabling bony anchoring, the proximal stud articulated with respect to the base portion (6),

the threaded base portion (6) comprising i) a threaded portion for bony anchoring, ii) a proximal curved wall (17) with a hemispherical proximal form defining a cavity (16), and iii) a collar (18) located between the curved wall (17) and the threaded portion at a location suitable for abutting against a pedicula,

the proximal stud (5) comprising i) a threaded portion (10), and ii) a distal head (11), the distal head (11) retained in the cavity (16) by the curved wall (17);

a connecting part (3) engaged on the threaded stud (5), the connecting part (3) comprising i) a rounded section (20) connected to ii) two parallel lateral wings (21) with holes for engaging on the proximal stud (5), iii) a circular wall (27) delineating an internal concave spherical face (28) mating with the curved wall (17) of the base portion (6), the rounded section for connecting a linking rod (2) to the anchoring member (1); and

a clamping part (4) screwed on the threaded portion (10) of the proximal stud (5) and clamping against an upper one of the wings (21) of the connecting part (3), wherein,

the circular wall (27) delineating the internal concave spherical face (28) bears against the curved wall (17) of the base portion (6), wherein,

the circular wall (27) is deformable to dampen movement of the proximal stud (5) with the lowermost surface of the circular wall (27) abutting against the upper surface of the collar (18),

the circular wall (27) is comprised from i) a deformable part (31) located between a lower one of the two wings (21) and the curved wall (17) of the base portion (6), and ii) a washer (32) located between the lower one of the two wings (21) and the deformable part, the amount of multidirectional backlash of the proximal stud (5) being limited by a lowermost surface of the washer (32) abutting against the upper surface of the collar (18), and

an amount of multidirectional backlash of the proximal stud (5) being limited being limited by a dampening effect provided by the deformable part (31).

25. (previously presented) The vertebral osteosynthesis equipment of claim 24, wherein,

the washer (32) is screwed onto the threaded portion (10) of the proximal stud (5).

26. (cancelled).

27. (currently amended) The vertebral osteosynthesis equipment of claim [[22]] 24, wherein, said deformable part (31) is composed of a compressible material.

28. (previously presented) The vertebral osteosynthesis equipment of claim 22, wherein,

adjacent surfaces of the distal head (11) and the curved wall (17) slip against one another during backlash of the proximal stud (5), and

the adjacent surfaces of the distal head (11) and the curved wall (17) include a resistant coating layer capable of resisting slipping movements of the adjacent walls against one another.

29. (currently amended) The vertebral osteosynthesis equipment of claim [[27]] 28, wherein, the resistant coating layer is a ceramic coating layer.

30. (currently amended) The vertebral osteosynthesis equipment of claim [[27]] 28, wherein, the resistant coating layer is a titanium nitride coating layer.

31. (new) The vertebral osteosynthesis equipment of claim 23, wherein,

the circular wall (27) is comprised from i) a deformable part (31) located between a lower one of the two wings (21) and the curved wall (17) of the base portion (6), and ii) a washer (32) located between the lower one of the two wings (21) and the deformable par.

32. (new) The vertebral osteosynthesis equipment of claim 22, wherein the circular wall (27) is integral with the lower one of the lateral wings (21).

33. (new) The vertebral osteosynthesis equipment of claim 31, wherein, said deformable part (31) is composed of a compressible material.

34. (new) The vertebral osteosynthesis equipment of claim 22, wherein,

adjacent surfaces of the distal head (11) and the curved wall (17) slip against one another during backlash of the proximal stud (5), and

the adjacent surfaces of the distal head (11) and the curved wall (17) include a resistant coating layer capable of resisting slipping movements of the adjacent walls against one another.

35. (new) The vertebral osteosynthesis equipment of claim 34, wherein, the resistant coating layer is a ceramic coating layer.

36. (new) The vertebral osteosynthesis equipment of claim 34, wherein, the resistant coating layer is a titanium nitride coating layer.